

Background, Purpose and Description

Access Washington <http://access.wa.gov/>
User-centered redesign

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What is Access Washington?

The Access Washington website is a large portal that has become an important tool for helping Washington State residents find and use government services. It is a pointer to government departments, on-line applications, and statewide citizen information. There is a wide range of people using this portal, ranging from out of state tourists to Washington citizens to businesses trying to stay legal with the state. Since the site was launched in 1998, the number of daily visitors has grown from approximately 5,000 to nearly 20,000.

Why did you redesign Access Washington?

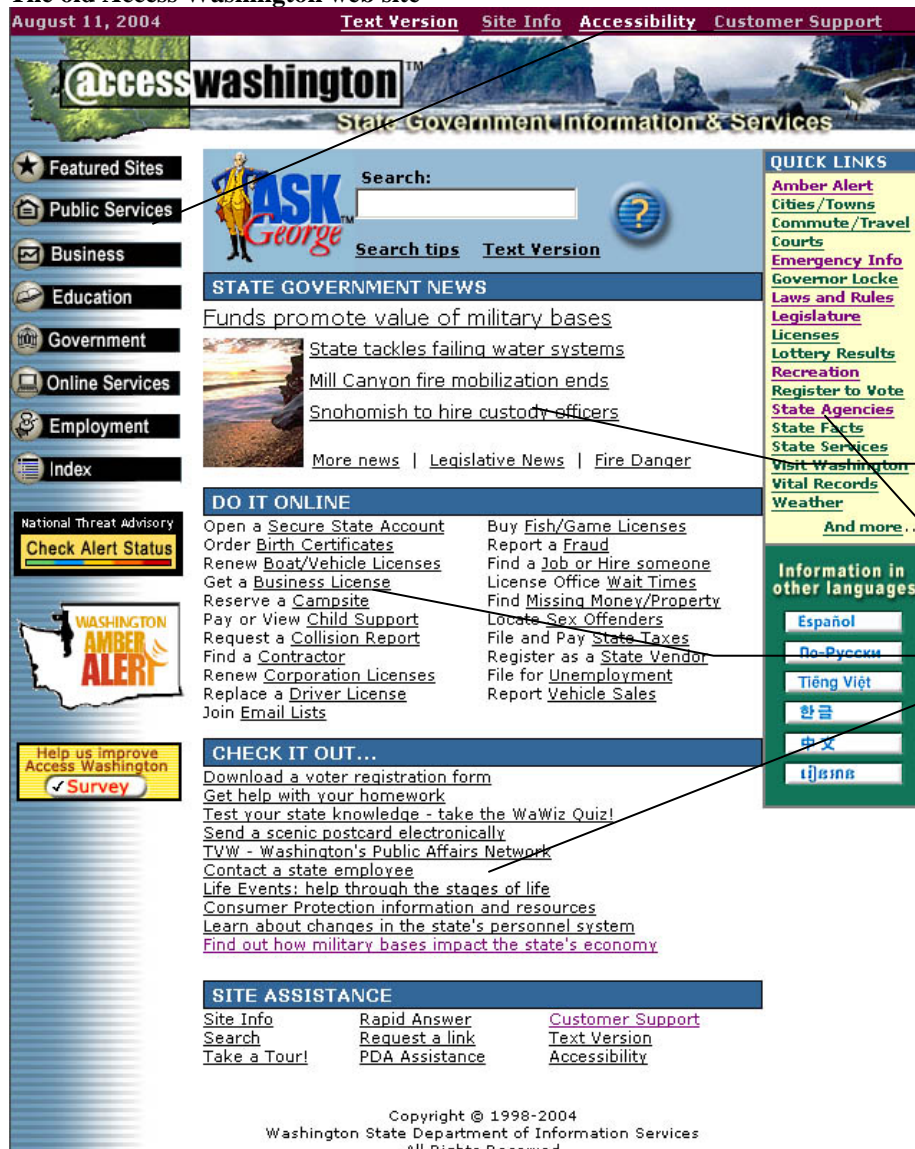
Although the portal has undergone many feature changes and content additions during the last 5 years, there have been no user interface changes made in terms of information architecture, navigation and overall appearance. We were aware of usability problems with the site based upon our own experience as designers. The original design was based on what we believed customers need and want as opposed to actual user needs, goals and tasks. Informal feedback from customer agencies and site visitors suggested that our assumptions did not match users' real needs. Emails and other feedback pointed out that users had trouble finding and using information and understanding our terminology. This was further confirmed in a benchmark usability study of the website with representative users. Participants in this study had difficulty accomplishing their tasks and were overwhelmed by the seemingly random ordering and presentation of information.

What were some of the problems with the old website?

In order to understand what was working well and what wasn't working well with the old Access Washington website, we conducted a benchmark usability test in October 2003. The results from this initial benchmark were also used to quantitatively measure the success of subsequent improvements. The benchmark confirmed our suspicions that the site was difficult to use. Key findings included:

- Participants had varying levels of success when attempting to accomplish their tasks. Participants completed tasks only 53% of the time, succeeded with effort 24% of the time, and failed 24% of the time.
- Most participants expressed feeling overwhelmed with the amount of information and navigational choices on the home page. Multiple pathways and inconsistent labels often caused confusion when users looked for information on the site.
- The black button menus on the left of the page hindered users' ability to find information and navigate on the Access Washington website.
- Users tended to overlook the news area and expressed little or no interest in reading news on Access Washington.
- Users found the look and feel of Access Washington aesthetically pleasing.
- Access Washington offers a great deal of value. Users stated that the website provides a wealth of information and that being able to interact with the government through a website is a positive thing.

The old Access Washington web site



The labels for major navigational categories such as "Online Services," and "Public Services" were not intuitive for users.

The flyout or cascading menus (not shown) from the black buttons were difficult to use and hindered users' ability to find information.

Important screen real estate was devoted to news. Participants expressed little or no interest in this content.

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What approach did you embrace for the redesign?

For the redesign of Access Washington we decided on a user-centered design process. In other words, rather than redesigning the site based on our own assumptions, we intended to learn more about our users and how they use our site, and to redesign or restructure the site based on their input and web usage. With the guidance of a team of usability experts we developed a detailed user-centered design plan that involved focusing on users early in the redesign process, empirical measurement and iterative testing and design.

What were the major activities in your user-centered redesign process?

Our process consisted of the following phases: Requirements analysis, conceptual design and modeling, iterative prototyping & evaluation, production, launch.

Requirements analysis

- Business analysis – identify business goals, success measures, project management details & product needs. Techniques included:
 - a. Stakeholder meetings during which customer data was presented and prioritized.
 - b. Doing comparative research on other state portals
 - c. Meeting with executives to define a set of measurable business goals and objectives for the redesign
 - d. Development of a detailed user-centered redesign plan
- User research and analysis - analyze customer characteristics, tasks and goals. Developed user personas for the most important customer groups. Techniques include:
 - a. a usability test of the old website (benchmark usability test)
 - b. server and search log analysis
 - c. iterative surveys
 - d. demographic and psychographic research on WA state internet users conducted by outside organizations
 - e. customer support data analysis
 - f. development of data driven user profiles
 - g. development of user personas and scenarios – detailed stories of the key users, that describe user requirements in terms of their roles, goals and tasks

Conceptual design and modeling

The conceptual design phase focused on understanding and testing users' mental models of the information architecture.

- a. A card sorting study designed to understand users' organization of the information.
- b. Content inventory
- c. Development of preliminary information architecture based on card sorting study and user research.
- d. A phone usability test focused on evaluating the information architecture.

Prototyping and iterative design and evaluation

During this phase we worked on the navigational design, layout and interactions on the site. The design was continually evaluated through usability tests with representative users and refined in an iterative process. At each stage, we cycled between refining our design and evaluating our latest refinement, iterating until we achieved a level of usability that we were satisfied with before continuing to the next stage. Our first two usability tests were conducted on paper, and with each subsequent testing cycle we added more and more detail.

Production

During this phase, the site was coded. A team of three developers built the website using Microsoft .NET and the Interwoven Teamsite Content Management System.

Launch

The site was launched September 12, 2004. We are continuing our user-centered design activities by:

- continuing to collect data from our users and feeding this back into the design process
- planning a formative usability test to compare results
- starting to collect data on our success measures

What are the business goals for the site?

1. Provide a positive citizen experience: offer a *professional* and *friendly* web face.

Professional means being:

- service-oriented
- reliable
- trustworthy
- up-to-date
- fast
- clean

Friendly means offering our customers what they need and want:

- focusing on the users' goals
- offering a pleasing and enjoyable experience

2. Increase efficiency: our customers will quickly get what they need and the Department of Information Services (the agency responsible for building and maintaining the site) will have the opportunity to reduce costs. Currently, Access Washington contracts with an outside vendor to supply customer support services. By improving citizen access we can:

- reduce customer support costs
- increase traffic to the site
- drive customers to applications and information

3. Develop quality development processes: increase user and stakeholder satisfaction by:

- incorporating citizen input throughout the development process
- mentoring the DIS project team in best practices for web design
- increasing the DIS project team's pride of ownership

Who are the users for Access Washington?

Our user research and analysis revealed that there were two primary users of Access Washington—the general public and businesses. Secondly, government workers represented only a small portion of the site users (~7%). Governmentals, although a distinct group, were deemed to be secondary design targets because their goals are a subset of the public's goals and activities, they tend to have greater skills and stronger mental models of government, and they are already served by another channel—Inside Washington, a statewide intranet.

Since the general public and businesses were clearly the primary users of the site, we then looked in detail at each of these two groups in relation to their goals, motivations, and defining characteristics. Below is a short summary of these two user groups' characteristics and tasks.

General Public

The general public is by far the largest group of users of the Access Washington website. As we looked at the usage and demographic data it became clear that the public, as users of Access Washington, are defined by their information seeking behaviors and their life roles.

Fact Finders

Based on a review of help requests, server logs and survey results there were two key information-seeking behaviors seen: process seekers and fact finders. Process seekers were looking for “packaged” solutions to common processes. For instance “What steps do I take to start a business?” or “How do become a resident of the state of Washington?” Fact Finders, in contrast, are generally looking for specific information, triggered by a life event and based on an unlimited set of discrete questions. For instance, fact finders might ask “What is the number of the Department of licensing?” or “What is the rule regarding hiring minors?”

Because the Access Washington site is defined by the web management team as a “gateway” and other state agencies own the interactive content, the current site re-design we focused on supporting the general public in their “fact finding” role. Future site redesigns will explore the feasibility and benefits of more fully supporting users in understanding state processes and providing a more personalized service.

Life Triggers

Looking at the types of questions users ask and the areas of the site that are most frequented, there is a pattern of broad usage, spread out over an entire lifetime. People come to the Access Washington site because something happens in their life that triggers a need for information. Some of these triggers are common and predictable—for instance, moving to the state, or getting married—and some are triggered by more random events—for instance, checking road conditions, finding a certified electrician, or getting help with an abusive husband.

The Access Washington website redesign addresses both of these types of life triggers—random and predictable—by offering multiple modes of access.

Tasks

Some typical Public tasks are to:

1. Find some particular piece of information
2. See Lottery winning numbers
3. Look for government assistance (e.g. getting child support)
4. Get a map of an area
5. Look up contact information for a government agency (e.g. DSHS)
6. Look up cities and towns (law enforcement, local government)
7. Get/ look up a marriage license, birth certificate, drivers license, divorce, etc
8. Find out if a sex offender is in the area, locate criminals, do a background check
9. Look up a law, rule, proposed bill
10. Get news about emergency situations
11. Lookup school facts (online courses, school rankings)
12. Find out about establishing state residency
13. Find a job
14. File for unemployment insurance

15. Get recreation information— travel, reserve a campsite
16. Find a State senator, or legislator
17. Check a business history, references
18. Commute/Travel (to Seattle)
19. Find unclaimed property
20. Get help with civics homework

Businesses

The second largest user of Access Washington is the business community. This community is defined by standard business practices and geared to the full set of roles engaged in operating a business.

Standard business practices

Standard business practices include starting a business, getting licenses, hiring and protecting employees, paying taxes, managing the business, and making money.

Business roles

Business representatives wear a variety of hats. In small companies, one person may do everything, where in large companies several people may perform each role. Business roles include employing people, starting and managing a business, managing insurance, paying bills, and researching rules and regulations.

Tasks

Some typical business tasks are to:

1. Look up regulations – e.g. building codes, tax rates
2. Schedule inspections
3. Get a trade license
4. Start a business
5. Pay bills, taxes, file quarterly
6. Hire an employee
7. Take care of employees
8. Talk to someone to get help
9. Stay legal e.g. licenses (status), safety (employee & health)
10. Find a government agency (e.g. department of land use)
11. Set-up and file unemployment insurance
12. Contact employment & labor resources
13. Renew or get a vehicle tax license
14. Find specific employment laws, standards, wages
15. Get insurance—workers compensation, employment & security, bonding, vehicle
16. Get business help – loans
17. Run employee background checks
18. Commute – travel information
19. Look up state vendor contracts
20. Close a business

What are some of the user-driven improvements on the new website?

Some of the user-centered design changes include:

- Simplified home page that emphasizes users' priority tasks.
- New information architecture with grouping and labeling of information that matches users' mental models and language. The information architecture includes section specific "How do I?" links which are also data driven (based on top users' tasks).
- Simplified and persistent global navigational design that recognizes that users typically come for only one task and then leave the site.
- A fresh, friendly but professional design.

Specific features of the design are highlighted in the screenshots on the next page. All of the highlighted features were the result of testing with representative users in multiple iterations.

Home page

Fresh colors promote a friendly yet official image.

Participants repeatedly commented that the date helped them determine the freshness of the content on the site

Fewer choices, the absence of redundant choices and consistent labeling helps customers find what they need.

The search box is presented in an obvious consistent location. The box is long enough for users to review and edit entries.

Global navigation tabs provide access to the main sections of the site. Tab labels employ users' terminology and help them predict what information is available in the respective sections.

Priority tasks are emphasized and written in users' language.

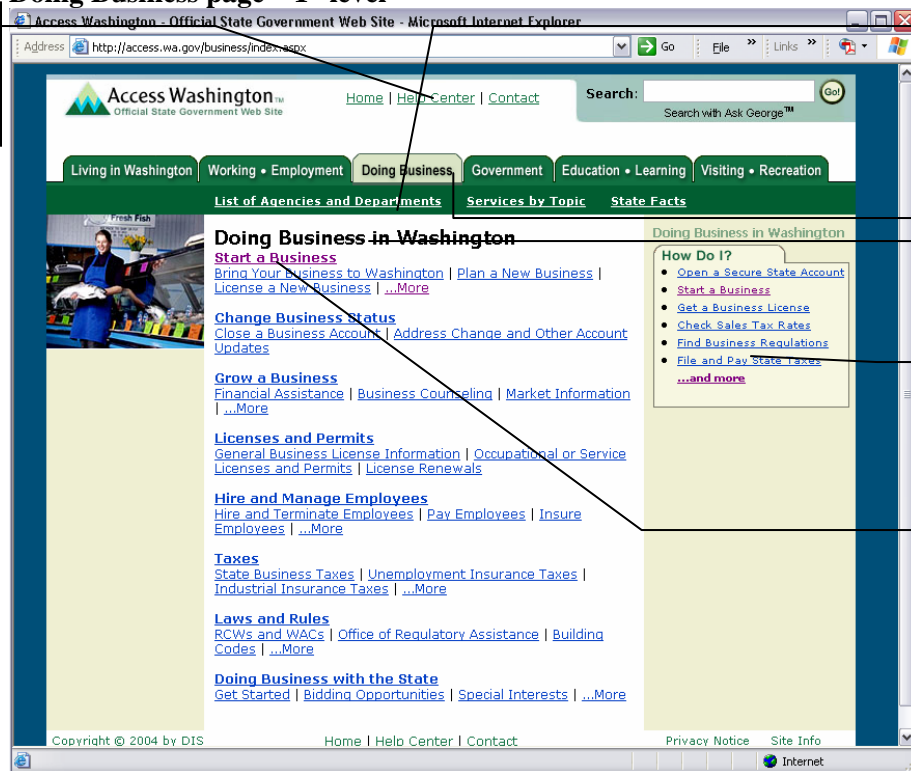
The "do it online" icon helps users distinguish online services from online information.

News is given reduced visual emphasis.

The extended banner and graphic welcome users and help distinguish the home page from lower level pages. They also give the web site a less rigid or "governmental" appearance and emphasize friendliness and helpfulness.

Doing Business page – 1st level

Site utilities are consistently placed in an obvious location.



The agency and services links represent a top task and are accessible from all pages.

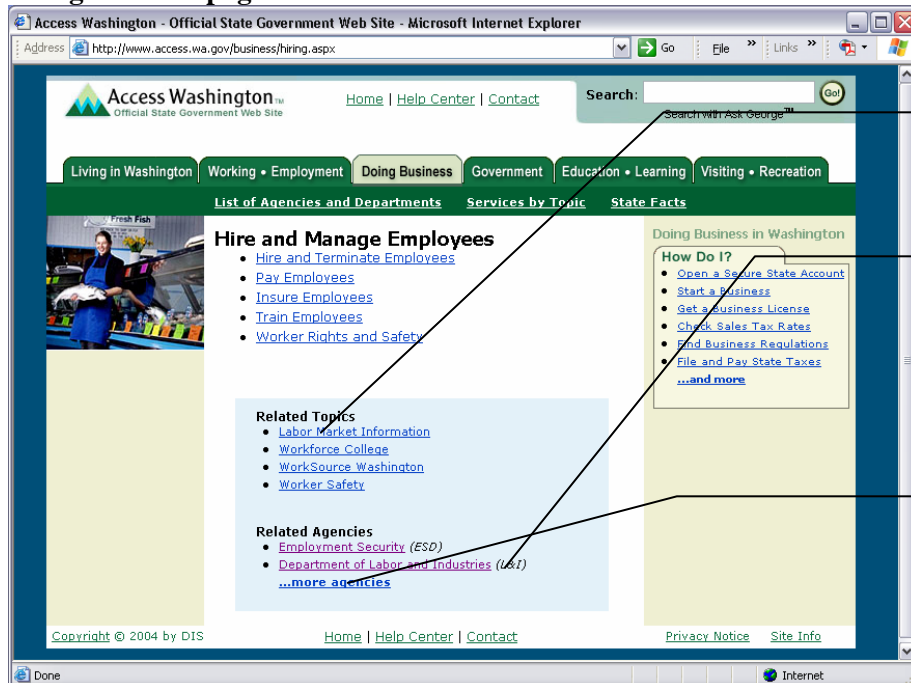
Highlighted tabs & matching page titles provide sense of place.

Section specific How do I's provide access to users' key tasks.

Grouping and labeling of information according to users' mental models.

Presentation of information allows users to click directly to a sub-category (ordered according to task priority) or to a main category.

Doing Business page – 2nd level



Related topics and related agencies are presented in an obvious and consistent location.

Traditional visited link color shows users where they have already been.

"More agencies" allows user to continue looking for an agency if the agency they are looking for is not listed here. This is a redundant path to the list of agencies and departments